

Date: Monday, 1/30/2006 3:43:47 PM
 User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services		Drawing Name	: CROSSTUBE EXTRUSION (206L)		
Job Number	: 25664					
Estimate Number	: 10027					
P.O. Number	: N/A			Part Number	: D6004115	
This Issue	: 1/30/2006		S.O. No.	: N/A		
Prsht Rev.	: NC			Drawing Number	: D6004 REV A	
First Issue	: N/A		Type	: RMA		
Previous Run	: 23968			Project Number	: N/A	
Written By	: See comment below			Drawing Revision	: A	
Checked & Approved By	: DJ 06.01.30 u			Material	: N/A	
Comment	: Est Rev:B 00.12.15 Added: Issue P/O EC			Due Date	: 6/1/2006	

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
1.0	PG	PURCHASING
		Comment: PURCHASING Issue P/O 00000505 <i>Ap 06/02/02</i> a) Extrude as per Dwg D6004 b) Material: 7075-T6/T6511 (WW-T-700/7 or QQ-A-225/9 or QQ-A-200/11) seamless aluminum tube c) Minimum ultimate tensile strength = 77 ksi d) Minimum tensile yield strength=66 ksi e) Material certification required
2.0	PACKAGING 1	PACKAGING RESOURCE #1
		Comment: PACKAGING RESOURCE #1 Receive & Inspect For Transit Damage Ensure material certification is attached <i>CJ 06/28/06 29</i>
3.0	QC6	DIMENSIONAL CHECK
		Comment: DIMENSIONAL CHECK Ensure Material certification comply to Dwg D6004 <i>Ap 01/01/30 29</i>
4.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
		Comment: HAND FINISHING RESOURCE #1 Chemical Conversion Coat as per QSI 005 4.1 <i>N/A</i>

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA Date: 0107104
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Seq. #:	Machine Or Operation:	Description :
5.0	PACKAGING 1	PACKAGING RESOURCE #1
	<p>Comment: PACKAGING RESOURCE #1 Identify and Stock Location: <u> </u></p>	<p><i>ML 06/06/30</i></p>
6.0	DC	DOCUMENT CONTROL
	<p>Comment: DOCUMENT CONTROL Inspection Level 21</p>	<p><i>S 26/07/04</i></p>

Job Completion



U 06/07/04

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
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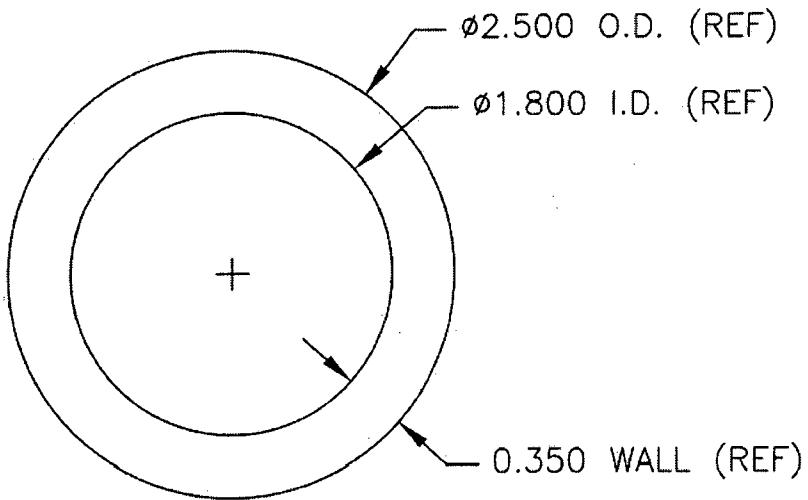
NOTE: Date & initial all entries

DART

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D6004 REV. A
DATE		SHEET 1 OF 1
00.11.22		SCALE 1:1
A	00.11.22	NEW ISSUE

SPECIFICATION CONTROL DRAWING

RELEASED
00.11.24 9



NOTES

1) D6004-XXX CROSSTUBE

LENGTH

WHERE XXX IS LENGTH IN INCHES

EG. 115" LONG TUBE: D6004-115

2) MATERIAL: 2.500 OD x 0.350 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-200/11) SEAMLESS ALUMINUM TUBE.
 MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi
 MINIMUM YIELD TENSILE STRENGTH = 66 ksi

3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:
 O.D.: ± 0.006 MEAN (± 0.012 INCLUDING OVALITY)
 WALL: ± 0.015 MEAN (± 0.035 INCLUDING ECCENTRICITY)
 LENGTH: XXX $+0.125/-0.000$
 STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH

4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.

5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

SHOP COPY
 RETURN 2025/9 OR
 ENGINEERING
 UNCONTROLLED COPY
 SUBJECT TO AMENDMENT
 WITHOUT NOTICE
 WORK ORDER
 NO. 25664

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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NOTE: Date & initial all entries

Abnahmeprüfzeugnis 3.1 - EN 10204:2004

Inspection Certificate 3.1 - EN 10204:2004 / Certificat de Reception 3.1- EN 10204:2004

Kunde:	Dart Aerospace Ltd.	Zeugnisnummer:	432/06
<i>Client:</i>	1270 Aberdeen Street K6A1K7 Hawkesbury, ON Canada	<i>Cert No.: / No. du certificat:</i>	PO00000505
Produkt:	Rohre nahtlos gepresst Tubes seamless extruded	Bestellnummer:	17486/4
<i>Product / Produit:</i>	-; AMS - QQ - A - 200/11E; -; -; Spezifikation Dart Aerospace D6004	<i>Order No. / No. de commande</i>	<i>Our Reference/Notre Reference:</i>
Spezifikation:			
<i>Specification:</i>			
Werkstoff:	7075	Zustand:	T 6511
<i>Alloy/Alliage:</i>		<i>Temper/État</i>	
Abmessung <i>Size / Dimension</i>	2,500 INCH x 1,800 INCH x 0,350 INCH x 115,000 INCH D6004-115 2.500 X 0.350 X 115		
Kennzeichnung <i>Marking/Marquage:</i>	ALUnna-Cert No.432/06-7075-T6511-Cast No.01503347-AMS-QQA-200/11E-2.500" OD X 0.350"Wall-Heat No.447/05-Lot17486/4-1-P.O.00000505		
Lieferung <i>Delivered Material / Matériel délivré:</i>	29	pcs.	lbs
		802	

1. Chemische Analyse

Chemical Analysis / analyse chimique

	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Zr	Bi	Sn	Ni
Charge/ Cast No.	min. max.			1,2 2,0	0,30	2,1 2,9	0,18 0,28	5,1 6,1					
01503347	0,40	0,50	0,09	0,21	1,48	0,06	2,40	0,19	5,80	0,03	0,00	0,01	

Elements without indication < 0,01 %

2. Mechanische Eigenschaften

Mechanical Properties / Valeurs Mécaniques

Anforderungen Requirements	tensile (Rm) ksi	yield (Rp0,2) ksi	elongation 2" %	elongation A %	Hardness HB	Heat No.
	min. max.	77,0	66,0			
1 2	84,825 85,695	78,300 79,460	8,0 8,0		163 166	447/05 - 29 pcs.

**Ergebnis der
Prüfungen:** Es wird bestätigt, daß die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellannahme entspricht

Test results: We confirm that the delivery has been tested and applies to the agreements made on receipt of the order

Resultats: Nous confirmons que la livraison a été contrôlée et correspond avec les conventions faites à la réception de la commande